AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A method in a host channel adapter, the method comprising:

receiving a work notification request for a specified service level, each specified service level (SL) associated with a prescribed virtual lane (VL);

determining from a link layer module an ordering position for the prescribed virtual lane corresponding to the specified service level relative to other virtual lanes; and

in a transport layer module, selectively servicing the work notification request based on the corresponding determined ordering position, wherein the selectively servicing includes servicing the work notification request by retrieving a work queue entry from a prescribed location in system memory.

2. (ORIGINAL) The method of claim 1, wherein:

the receiving step includes receiving a plurality of work notification requests, at least a portion of the work notification requests supplying the respective specified service levels, the service levels assigned to a plurality of the prescribed virtual lanes based on a prescribed mapping;

the determining step includes determining an ordering position for at least one of the prescribed virtual lanes; and

the selectively servicing step including selecting a sequence for servicing the work notification requests based on the determined ordering position.

3. (ORIGINAL) The method of claim 2, wherein the selectively servicing step includes first servicing a first group of the work notification requests associated with a first of the prescribed virtual lanes having a first ordering position, the first ordering position specifying the virtual lane currently serviced by the link layer module.

4. (ORIGINAL) The method of claim 3, wherein the selectively servicing step further includes second servicing following the first servicing step, a second group of the work notification requests associated with a second of the prescribed virtual lanes having a second ordering position, based on at least one of completing servicing the first group and reaching a prescribed threshold associated with the first of the prescribed virtual lanes.

5. (ORIGINAL) The method of claim 1, wherein the determining step includes receiving from the link layer module processing information specifying a current virtual lane being processed by the link layer module, the ordering position determined based on the processing information.

6. (PREVIOUSLY PRESENTED) A host channel adapter comprising:

a link layer module configured for selecting one of a plurality of virtual lanes, for data transfer, based on an identifiable ordering position; and

a transport layer module configured for receiving a work notification request for a specified service level, the transport layer module configured for identifying the virtual lane and the corresponding ordering position associated with the specified service level, and selectively servicing the work notification request based on the identified ordering position for the identified virtual lane, wherein the transport layer module is configured for servicing the work notification request by retrieving a work queue entry from a prescribed location in system memory.

7. (ORIGINAL) The channel adapter of claim 6, wherein the transport layer module is configured for selecting for servicing from a plurality of received work notification requests, a first group of the received work notification requests for a service level associated with a first of the virtual lanes having a first ordering position at least a portion of the received work notification requests supplying the respective specified service levels.

8. (ORIGINAL) The channel adapter of claim 7, wherein the transport layer module is configured for determining the first ordering position based on at least one of: identifying the first virtual lane as the one selected virtual lane; and the link layer module identifying the first ordering position for the first of the virtual lanes in response to a query from the transport layer module.

9. (ORIGINAL) The channel adapter of claim 7, wherein the transport layer module is configured for selecting for servicing, following the first group, a second group of the received work notification requests specifying a service level associated with a second of the virtual lanes having a second ordering position, based on at least one of the transport layer module completing servicing the first group and the link layer module reaching a prescribed threshold associated with the first of the virtual lanes.

10-11. (CANCELED)

12. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the work notification request identifies the work queue entry stored in system memory.

13. (PREVIOUSLY PRESENTED) The channel adapter of claim 6, wherein the work notification request identifies the work queue entry stored in system memory.